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PATENT APPLICATION

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, Colorado 80527-2400ATTORNEY DOCKET NO. 200315498-1IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Ted C. Johnson

Confirmation No.: 1371

Application No.: 10/800,828

Examiner: Saeed S. Mirzadegan

Filing Date: 03-15-2004

Group Art Unit: 2144

Title: Method and Apparatus for Effecting Secure Communications

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Alexandria, VA 22313-1450TRANSMITTAL OF APPEAL BRIEFTransmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on 07-14-2008.☒ The fee for filing this Appeal Brief is \$510.00 (37 CFR 41.20).☐ No Additional Fee Required.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

☐ (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d)) for the total number of months checked below:☐ 1st Month
\$120☐ 2nd Month
\$460☐ 3rd Month
\$1050☐ 4th Month
\$1640☐ The extension fee has already been filed in this application.☒ (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account 08-2025 the sum of \$ 510 . At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees.

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Signature: 

Rev 10/07(ApBrief)

Respectfully submitted,

Ted C. Johnson

By: 

Dan C. Hu

Attorney/Agent for Applicant(s)

Reg No. : 40,025

Date : September 11, 2008

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Alexandria, VA 22313-1450**TRANSMITTAL OF APPEAL BRIEF**Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on 07-14-2008.☒ The fee for filing this Appeal Brief is \$510.00 (37 CFR 41.20).☐ No Additional Fee Required.

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Signature: 

Rev 10/07(AplBrief)

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Ted C. Johnson

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Dan C. Hu

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Applicants:	Ted C. Johnson	§	Art Unit:	2144
		§		
Serial No.:	10/800,828	§		
		§	Examiner:	Saeed S. Mirzadegan
Filed:	March 15, 2004	§		
		§		
For:	Method and Apparatus for	§	Atty. Dkt. No.:	200315498-1
	Effecting Secure	§		(HPC.0110US)
	Communications	§		

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Alexandria, VA 22313-1450

APPEAL BRIEF PURSUANT TO 37 C.F.R § 41.37

Sir:

The final rejection of claims 1-7, 9-13, 15-21, 23-25, 27, 28, and 30-34 is hereby
appealed.

I. REAL PARTY IN INTEREST

The real party in interest is Hewlett-Packard Development Company, L.P.

II. RELATED APPEALS AND INTERFERENCES

None.

III. STATUS OF THE CLAIMS

Claims 1-7, 9-13, 15-21, 23-25, 27, 28, and 30-34 have been finally rejected and are the
subject of this appeal. Claims 8, 14, 22, 26, and 29 have been cancelled.

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01 FC:1402 510.00 DA

Date of Deposit: <u>September 11, 2008</u>
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<u>Ginger Yount</u>
Ginger Yount

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IV. STATUS OF AMENDMENTS

An Amendment Under 37 C.F.R. § 41.33 has been submitted to address a matter of form raised by the Examiner against the Specification. Entry of the Amendment is proper under §§ 41.33 and 1.116.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The following provides a concise explanation of the subject matter defined in each of the independent claims involved in the appeal, referring to the specification by page and line number and to the drawings by reference characters, as required by 37 C.F.R. § 41.37(c)(1)(v). Each element of the claims is identified by a corresponding reference to the specification and drawings where applicable. Note that the citation to passages in the specification and drawings for each claim element does not imply that the limitations from the specification and drawings should be read into the corresponding claim element.

Independent claim 1 recites a method of effecting secure communications between a server and a client, the server executed in a server computer, the method comprising:

detecting (Fig. 4:402), at the server computer, a client connection at a first port (Specification, p. 11, ¶ [0039]);

providing (Fig. 4:405), by the server computer, the client with a decoy port number (Specification, p. 11, ¶ [0039]); and

providing (Fig. 4:406, 408), by the server computer, services to the client on a second port having a second port number that is mapped to the decoy port number, wherein the second port number is different from the decoy port number (Specification, p. 11, ¶ [0039]; p. 7, ¶ [0024]).

Independent claim 9 recites a computer system comprising:

a plurality of ports, each port having a respective port number (Specification, p. 5, ¶ [0015]);

a server application (Fig. 2A: 211); and

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a routine (Fig. 2A: 212) that, if executed, is operative to:

- detect a client connection at a first port (Specification, p. 11, ¶ [0039]);
- provide the client with a decoy port number (Specification, p. 11, ¶ [0039]); and
- provide services to the client on a second port having a second port number that is mapped to the decoy port number, wherein the second port number is different from the decoy port number (Specification, p. 11, ¶ [0039]; p. 7, ¶ [0024]).

Independent claim 15 recites a server computer system comprising:

- a plurality of ports, each port having a respective port number (Specification, p. 5, ¶ [0015]);

- a first server application (Fig. 2A: 211; Fig. 5: 211a, 211b, 211c)); and

- a first routine (Fig. 2A: 212; Fig. 5: 212a, 212b, 212c) that is associated with the first server application and that, if executed, is operative to:

- detect a client connection at a first port (Specification, p. 11, ¶ [0039]);
- transmit a decoy port number to the client (Specification, p. 11, ¶ [0039]);
- terminate the connection to the first port (Specification, p. 11, ¶ [0039]); and
- provide services to the client on a second port having a second port number that is mapped to the decoy port number, the second port number being a valid port number that is different from the decoy port number (Specification, p. 11, ¶ [0039]; p. 7, ¶ [0024]);

- a second server application (Fig. 2A: 211); and

- a second routine (Fig. 2A: 212) that is associated with the second server application and that, if executed, is operative to:

- detect a client connection at a third port (Specification, p. 11, ¶ [0039]);
- transmit a second decoy port number to the client (Specification, p. 11, ¶ [0039]);
- terminate the connection to the third port (Specification, p. 11, ¶ [0039]); and
- provide services to the client on a fourth port having a fourth port number that is mapped to the second decoy port number, the fourth port number being another valid port number that is different from the second decoy port number (Specification, p. 11, ¶ [0039]; p. 7, ¶ [0024]).

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Independent claim 17 recites method executed by a client computer, comprising:
attempting to access a server application on a first port of a server computer
(Specification, p. 11, ¶ [0039]);
receiving, from the server computer, a decoy port number that is an invalid port number
(Specification, p. 11, ¶ [0039]);
translating the decoy port number to a valid port number (Specification, p. 7, ¶ [0022]);
and
connecting to the server application on the valid port number (Specification, p. 8, ¶ [0025]).

Independent claim 21 recites a computer system comprising:
a plurality of ports, each port having a respective port number (Specification, p. 5, ¶ [0015]);
an application (Fig. 2A: 211); and
means for effecting secure access to the application by redirecting a client from a first
port to a second port, wherein the means for effecting secure access comprises:
a routine (Fig. 2A: 212) that, if executed, is operable to provide the client with a
decoy port number that maps to a second port number of the second port,
wherein the decoy port number is an invalid port number and the second
port number is a valid port number (Specification, p. 7, ¶ [0022], p. 11, ¶ [0039]).

Independent claim 23 recites an article comprising a machine-readable storage medium
that comprises instructions that, if executed, cause a server computer to:
detect a connection at a first port of the server computer by a client application
(Specification, p. 11, ¶ [0039]);
transmit, to the client application, a decoy port number, wherein the decoy port number is
an invalid port number (Specification, p. 11, ¶ [0039]); and

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cause a server application in the server computer to be launched at a second port that has a second port number mapped to the decoy port number, the second port number being a valid port number (Specification, p. 11, ¶ [0039]; p. 7, ¶ [0024]).

Independent claim 27 recites a client/server system comprising:

a server computer system (Fig. 2A: 21); and

a server application (Fig. 2A: 211) installed on the sever computer system and comprising instructions that, if executed on the server computer system, are effective to:

detect a connection at a first port by a client application (Specification, p. 11, ¶ [0039]);

transmit, to the client application, a decoy port number, wherein the decoy port number is an invalid port number (Specification, p. 11, ¶ [0039]);

terminate the connection on the first port (Specification, p. 11, ¶ [0039]); and

provide services to the client application on a second port having a second port number that is mapped to the decoy port number (Specification, p. 11, ¶ [0039]; p. 7, ¶ [0024]).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- A. Claims 9-13, 21, 32, and 33 were rejected under 35 U.S.C. § 101.
- B. Claims 1-3, 9, 10, 15, 17-19, 21, 23-25, 27, 28, 33, and 34 were rejected under 35 U.S.C. § 103 as obvious over U.S. Patent Application Publication No. 2003/0065950 (Yarborough) and U.S. Patent No. 6,859,835 (Hipp).
- C. Claims 4-7, 11-13, 16, 31, and 32 were rejected under 35 U.S.C. § 103 as obvious over U.S. Patent Application Publication No. 2003/0065950 (Yarborough) in view of U.S. Patent No. 6,859,835 (Hipp) and U.S. Patent Application Publication No. 2004/0019689 (Fan).
- D. Claims 20 and 30 were rejected under U.S.C. § 103 as obvious over U.S. Patent Application Publication No. 2003/0065950 (Yarborough) in view of U.S. Patent No. 6,859,835 (Hipp) and U.S. Patent Application Publication No. 2002/0112076 (Rueda).

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VII. ARGUMENT

The claims do not stand or fall together. Instead, Appellant presents separate arguments for various independent and dependent claims. Each of these arguments is separately argued below and presented with separate headings and sub-headings as required by 37 C.F.R. § 41.37(c)(1)(vii).

A. Claims 9-13, 21, 32, and 33 were rejected under 35 U.S.C. § 101.

1. Claims 9-13, 21, 32, and 33

Each of independent claims 9 and 21 recite a “computer system.” A person of ordinary skill in the art would understand that “computer system” would inherently include both hardware and software. Therefore, the Examiner’s assertion that these claims are directed to software *per se* is not well founded.

In view of the foregoing, it is respectfully submitted that the claims are directed to statutory subject matter.

Reversal of the § 101 rejection is respectfully requested.

B. Claims 1-3, 9, 10, 15, 17-19, 21, 23-25, 27, 28, 33, and 34 were rejected under 35 U.S.C. § 103 as obvious over U.S. Patent Application Publication No. 2003/0065950 (Yarborough) and U.S. Patent No. 6,859,835 (Hipp)

1. Claims 1-3.

It is respectfully submitted that the obviousness rejection of claim 1 over Yarborough and Hipp is defective.

To make a determination under 35 U.S.C. § 103, several basic factual inquiries must be performed, including determining the scope and content of the prior art, and ascertaining the differences between the prior art and the claims at issue. *Graham v. John Deere Co.*, 383 U.S. 1,

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17, 148 U.S.P.Q. 459 (1965). Moreover, as the U.S. Supreme Court held, it is important to identify a reason that would have prompted a person of ordinary skill in the art to combine reference teachings in the manner that the claimed invention does. *KSR International Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1741, 82 U.S.P.Q.2d 1385 (2007).

A first point of error made by the Examiner in the obviousness rejection is the Examiner's assertion that the following passage of Yarborough discloses "providing ... the client with a decoy port number": ¶ [0010], lines 24-25. 4/29/2008 Office Action at 4. This passage of Yarborough refers to a new IP address and port number for a data channel that is transmitted by an FTP server to a passive FTP client program. The new IP address and port number for the data channel that is referred to in this passage of Yarborough refers to a data channel that is created in response to a request from the FTP client program received at a command channel by the FTP server. Importantly, note that the new port number that is transmitted to the FTP client program by the FTP server is actually the port number of the data channel that is used for exchanging data packets. Thus, the port number provided by the FTP server to the FTP client program is **not** a decoy port number.

As recited in claim 1, the services provided by the server computer to the client is on a second port having a second port number that is mapped to the decoy port number, where the second port number is different from the decoy port number. In contrast, Yarborough teaches that the port number of the data channel transmitted to the FTP client program is the **same** port number at which data is to be transferred. Thus, Yarborough actually teaches against providing a decoy port number to a client, where the decoy port number is different from a second port number at which services to the client are provided.

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Moreover, the Examiner conceded that Yarborough fails to disclose "the second port number is different from the decoy port number." 4/29/2008 Office Action at 5. Instead, the Examiner cited Hipp as purportedly disclosing this claim feature. *Id.* Appellant respectfully disagrees. The cited passage of Hipp refers to a server application submitting a request to a first virtual port multiplexer (VPM) to listen on an initial port. The first VPM begins to listen on the initial port, and in response to a client connection to the server application, a connection is accepted, and the first VPM allocates a new port, and the first VPM signals a second VPM to negotiate or record the new port such that the client can establish a new communication connection to the server application on the new port. It is noted that both the first and second ports are valid ports and there is no indication whatsoever that either the initial port or the new port constitutes a decoy port. In fact, the new port is the port used for the connection between the client and server application so the new port cannot possibly constitute a decoy port.

The initial port is port 9000 (Hipp, 6:24), which refers to the port number that a plurality of applications are directed to (Hipp, 4:21-23). Hipp allows multiple applications to direct communication to the same port number without interference by using a virtual port multiplexer (VPM) system to redirect communications to virtual ports (Hipp, 4:15-37). Thus, the port 9000 is an actual port, not a decoy port. Clearly, Hipp provides absolutely no hint whatsoever of a server computer providing the client with a decoy port number, and then providing services to the client on a second port having a second port number that is mapped to the decoy port number, where the second port number is different from the decoy port number.

In view of the foregoing, even if Yarborough and Hipp can be hypothetically combined, the hypothetical combination of references would not lead to the claimed subject matter.

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Moreover, it is noted that both Yarborough and Hipp refer to generation of new ports in response to a connection request, where the new ports are **valid** ports used for the connection, rather than decoy ports. A person of ordinary skill in the art would have been led **away** from using a decoy port. Thus, this person of ordinary skill would not have been prompted to combine Yarborough with Hipp to achieve the claimed subject matter.

Therefore, claim 1 and its dependent claims are clearly non-obvious over Yarborough and Hipp.

Reversal of the final rejection of the above claims is therefore respectfully requested.

2. Claims 9, 10, 15, 33.

The obviousness rejection of independent claim 9 is also defective. Specifically, the hypothetical combination of Yarborough and Hipp does not disclose or hint at a routine that is operative to "provide the client with a **decoy** port number," and "provide services to the client on a second port having a second port number that is mapped to the **decoy** port number, wherein the second port number is different from the **decoy** port number." Moreover, for reasons stated above, a person of ordinary skill in the art would not have been prompted to combine the teachings of Yarborough and Hipp to achieve the claimed invention.

Claim 9 and its dependent claims are therefore allowable over Yarborough and Hipp.

Independent claim 15 is similarly allowable over Yarborough and Hipp.

Reversal of the final rejection of the above claims is respectfully requested.

3. Claims 17-19.

The obviousness rejection of independent claim 17 is also defective. The hypothetical combination of Yarborough and Hipp fails to disclose or hint at the following claim features:

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“receiving, from the server computer, a **decoy** port number that is an **invalid** port number,” and “translating the **decoy** port number to a valid port number.” Moreover, for reasons stated above, a person of ordinary skill in the art would not have been prompted to combine the teachings of Yarborough and Hipp to achieve the claimed invention.

Reversal of the final rejection of the above claims is respectfully requested.

4. Claim 21, 23-25, 27, 28, 34.

The obviousness rejection of independent claim 21 is also defective. The hypothetical combination of Yarborough and Hipp fails to disclose a routine that “is operable to provide the client with a **decoy** port number that maps to a second port number of the second port, wherein the **decoy** port number is an **invalid** port number and the second port number is a valid port number.” Moreover, for reasons stated above, a person of ordinary skill in the art would not have been prompted to combine the teachings of Yarborough and Hipp to achieve the claimed invention.

Independent claims 23 and its dependent claims are similarly allowable over Yarborough and Hipp. Also, independent claim 27 and its dependent claims are similarly allowable over Yarborough and Hipp.

Reversal of the final rejection of the above claims is respectfully requested.

C. Claims 4-7, 11-13, 16, 31, and 32 were rejected under 35 U.S.C. § 103 as obvious over U.S. Patent Application Publication No. 2003/0065950 (Yarborough) in view of U.S. Patent No. 6,859,835 (Hipp) and U.S. Patent Application Publication No. 2004/0019689 (Fan).

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1. Claims 4, 11, 16, 31, 32.

In view of the defective obviousness rejection of base claims over Yarborough and Hipp, it is respectfully submitted that the obviousness rejection of dependent claims 4, 11, 16, 31, and 32 over Yarborough, Hipp, and Fan is also defective.

Reversal of the final rejection of the above claims is respectfully requested.

2. Claims 5-7.

In view of the defective obviousness rejection of base claim 1 over Yarborough and Hipp, it is respectfully submitted that the obviousness rejection of dependent claim 5 over Yarborough, Hipp, and Fan is also defective.

The Examiner cited Fan as purportedly disclosing “maintaining, in the server computer, a table of decoy port numbers that are mapped to valid port numbers.” Specifically, the Examiner cited ¶ [0018], lines 15-17, of Fan. Although this passage of Fan refers to a port mapper, there is absolutely no teaching or hint by Fan that its port mapper maps decoy port numbers to valid port numbers.

Therefore, the hypothetical combination of Yarborough, Hipp, and Fan clearly would not have led to the subject matter of claim 5 and its dependent claims.

Reversal of the final rejection of the above claims is respectfully requested.

3. Claims 12, 13.

In view of the defective obviousness rejection of base claim 9 over Yarborough and Hipp, it is respectfully submitted that the obviousness rejection of dependent claim 12 over Yarborough, Hipp, and Fan is also defective.

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Moreover, claim 12 and its dependent claim are further allowable for similar reasons as stated above with respect to claim 5.

Reversal of the final rejection of the above claims is respectfully requested.

D. Claims 20 and 30 were rejected under U.S.C. § 103 as obvious over U.S. Patent Application Publication No. 2003/0065950 (Yarborough) in view of U.S. Patent No. 6,859,835 (Hipp) and U.S. Patent Application Publication No. 2002/0112076 (Rueda)

1. Claims 20, 30.

In view of the defective obviousness rejection of base claims over Yarborough and Hipp, it is respectfully submitted that the obviousness rejection of dependent claims 20 and 30 over Yarborough, Hipp, and Rueda is also defective.

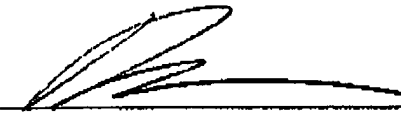
Reversal of the final rejection of the above claims is respectfully requested.

CONCLUSION

In view of the foregoing, reversal of all final rejections and allowance of all pending claims is respectfully requested.

Respectfully submitted,

Date: 9/11/2008



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VIII. APPENDIX OF APPEALED CLAIMS

The claims on appeal are:

1 1. A method of effecting secure communications between a server and a client, the
2 server executed in a server computer, the method comprising:
3 detecting, at the server computer, a client connection at a first port;
4 providing, by the server computer, the client with a decoy port number; and
5 providing, by the server computer, services to the client on a second port having a second
6 port number that is mapped to the decoy port number, wherein the second port
7 number is different from the decoy port number.

1 2. A method as defined in Claim 1, wherein the decoy port number is provided to the
2 client by the operation of a routine that is associated with the server, the routine executed in the
3 server computer.

1 3. A method as defined in Claim 2, further comprising:
2 launching the server on the second port; and
3 monitoring the second port for a connection by the client.

1 4. A method as defined in Claim 3, further comprising;
2 if there is no connection by the client within a predetermined time interval, terminating
3 execution of the server on the second port.

1 5. A method as defined in Claim 2, further comprising:
2 maintaining, in the server computer, a table of available decoy port numbers that are
3 mapped to valid port numbers.

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1 6. A method as defined in Claim 5, wherein the table maintained in the server
2 computer corresponds to a second table maintained at a client computer on which the
3 client is executed, the second table mapping decoy numbers to valid port numbers at the
4 client computer.

1 7. A method as defined in Claim 6, further comprising:
2 monitoring the second port for a connection by the client, and
3 if there is no connection by the client within a predetermined time interval, terminating
4 execution of the server on the second port.

1 9. A computer system comprising:
2 a plurality of ports, each port having a respective port number;
3 a server application; and
4 a routine that, if executed, is operative to:
5 detect a client connection at a first port;
6 provide the client with a decoy port number; and
7 provide services to the client on a second port having a second port number that is
8 mapped to the decoy port number, wherein the second port number is
9 different from the decoy port number.

1 10. A computer system as defined in Claim 9, wherein the routine, if executed, is
2 operative to:
3 launch the server application on the second port; and
4 monitor the second port for a connection by the client.

1 11. A computer system as defined in Claim 10, wherein the routine, if executed, is
2 operative to terminate execution of the server application on the second port if there is no
3 connection by the client within a predetermined time interval.

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1 12. A computer system as defined in Claim 9, wherein the routine, if executed, is
2 operative to maintain a table of decoy port numbers mapped to corresponding valid port
3 numbers.

1 13. A computer system as defined in Claim 12, wherein the routine, if executed, is
2 operative to:
3 launch the server application on the second port subsequent to providing the decoy port
4 number to the client.

1 15. A server computer system comprising:
2 a plurality of ports, each port having a respective port number;
3 a first server application; and
4 a first routine that is associated with the first server application and that, if executed, is
5 operative to:
6 detect a client connection at a first port;
7 transmit a decoy port number to the client;
8 terminate the connection to the first port; and
9 provide services to the client on a second port having a second port number that is
10 mapped to the decoy port number, the second port number being a valid
11 port number that is different from the decoy port number;
12 a second server application; and
13 a second routine that is associated with the second server application and that, if
14 executed, is operative to:
15 detect a client connection at a third port;
16 transmit a second decoy port number to the client;
17 terminate the connection to the third port; and
18 provide services to the client on a fourth port having a fourth port number that is
19 mapped to the second decoy port number, the fourth port number being
20 another valid port number that is different from the second decoy port
21 number.

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1 16. A server computer system as defined in Claim 15, wherein the first routine and
2 the second routine, if executed are operable, respectively, to:
3 terminate execution of the first server application on the second port if there is no client
4 connection within a predetermined time interval; and
5 terminate execution of the second server application on the fourth port if there is no client
6 connection within a predetermined time interval.

1 17. A method executed by a client computer, comprising:
2 attempting to access a server application on a first port of a server computer;
3 receiving, from the server computer, a decoy port number that is an invalid port number;
4 translating the decoy port number to a valid port number; and
5 connecting to the server application on the valid port number.

1 18. A method as defined in Claim 17, wherein the decoy port number is translated
2 using a wrapper script associated with a client application in the client computer.

1 19. A method as defined in Claim 17, wherein the decoy port number is translated
2 using code embedded in a client application in the client computer.

1 20. A method as defined in Claim 17, further comprising:
2 mapping the decoy port number to an intermediate port number; and
3 effecting an offset to the intermediate port number to produce the valid port number.

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1 21. A computer system comprising:
2 a plurality of ports, each port having a respective port number;
3 an application; and
4 means for effecting secure access to the application by redirecting a client from a first
5 port to a second port, wherein the means for effecting secure access comprises:
6 a routine that, if executed, is operable to provide the client with a decoy port number that
7 maps to a second port number of the second port, wherein the decoy port number is an invalid
8 port number and the second port number is a valid port number.

1 23. An article comprising a machine-readable storage medium that comprises
2 instructions that, if executed, cause a server computer to:
3 detect a connection at a first port of the server computer by a client application;
4 transmit, to the client application, a decoy port number, wherein the decoy port number is
5 an invalid port number; and
6 cause a server application in the server computer to be launched at a second port that has
7 a second port number mapped to the decoy port number, the second port number
8 being a valid port number.

1 24. An article as defined in Claim 23, further comprising instructions, that, if
2 executed, are operable to:
3 monitor the second port; and
4 if there is no connection by the client application within a predetermined time interval,
5 terminate execution of the server on the second port.

1 25. An article as defined in Claim 23, wherein the storage medium further comprises
2 a table of decoy port numbers that are mapped to valid port numbers.

1 27. A client/server system comprising:
2 a server computer system; and
3 a server application installed on the sever computer system and comprising instructions
4 that, if executed on the server computer system, are effective to:

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5 detect a connection at a first port by a client application;
6 transmit, to the client application, a decoy port number, wherein the decoy port
7 number is an invalid port number;
8 terminate the connection on the first port; and
9 provide services to the client application on a second port having a second port
10 number that is mapped to the decoy port number.

1 28. A client/server system as defined in Claim 27, further comprising:
2 a client computer system; and
3 a client application installed on the client computer system and comprising instructions
4 that, if executed on the client computer system, are effective to:
5 attempt to access the server application on the first port;
6 translate the decoy port number to the second port number; and
7 connect to the server application on the second port.

1 30. A client/server system as defined in Claim 28, wherein the client application
2 further comprises instructions that, if executed on the client computer system, are effective to:
3 map the decoy port number to an intermediate port number; and
4 impart an offset to the intermediate port number so as to derive the second port number.

1 31. The method as defined in Claim 1, wherein providing the decoy port number
2 comprises providing the decoy port number that has no meaning to an unauthorized client
3 computer, but the decoy port number is mappable to the second port number by an authorized
4 client computer.

1 32. The computer system as defined in Claim 12, wherein the decoy port number
2 provided to the client enables the client to map, using a second table associated with the client,
3 the decoy port number to the second port number such that the client can connect to the
4 computer system at the second port number.

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1 33. The computer system as defined in Claim 9, wherein the decoy port number has
2 no meaning to an unauthorized client computer, but the decoy port number is mappable to the
3 second port number by an authorized client computer.

1 34. The article of Claim 23, wherein the decoy port number is meaningless to an
2 unauthorized client computer, but the decoy port number is mappable to the valid port number by
3 an authorized client computer.

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IX. EVIDENCE APPENDIX

None.

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X. RELATED PROCEEDINGS APPENDIX

None.